



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0450; Project Identifier 2017-SW-100-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH (AHD)

Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters. This proposed AD was prompted by the discovery that certain parts that are approved for installation on multiple helicopter models are life limited parts when installed on Model MBB-BK 117 D-2 helicopters and some helicopter delivery documents excluded the life limit information. This proposed AD would require determining the total hours time-in-service (TIS) of a certain part-numbered rotor mast nut and re-identifying a certain part-numbered rotor mast nut. This proposed AD would also require establishing a life limit for a certain part-numbered rotor mast nut and helical gear support, and removing each part from service before reaching its life limit. Additionally, this proposed AD would require replacing a certain part-numbered main gearbox (MGB) with a not affected MGB as specified in a European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0450.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0450; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Rao Edupuganti, Aerospace Engineer, Dynamic Systems Section, Technical Innovation Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email rao.edupuganti@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0450; Project Identifier 2017-SW-100-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked

submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Rao Edupuganti, Aerospace Engineer, Dynamic Systems Section, Technical Innovation Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email rao.edupuganti@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0037, dated February 22, 2017 (EASA AD 2017-0037), to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (formerly Eurocopter Deutschland GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC) Model MBB-BK 117 D-2 and MBB-BK117 D-2m helicopters.

This proposed AD was prompted by the discovery that certain parts that are approved for installation on multiple helicopter models are life limited parts when installed on Model MBB-BK 117 D-2 helicopters and some helicopter delivery documents excluded the life limit information. The FAA is proposing this AD to address an unsafe condition on these products. See EASA AD 2017-0037 for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2017-0037 requires establishing a life limit for rotor mast nut part number (P/N) D632K1133-201 and helical gear support P/N D632K1113-201, and replacing these parts before exceeding their life limit. EASA AD 2017-0037 also requires replacing each rotor mast nut P/N D632K1133-201 for which the hours time-in-service (TIS) are unknown and replacing certain part-numbered rotor mast nuts before accumulating 3,708 hours TIS since first installation on a helicopter. EASA AD 2017-

0037 requires re-identifying each rotor mast nut P/N 117-12133-01 to P/N D632K1133-201 by following the specified service information. EASA AD 2017-0037 requires replacing any MGB P/N D632K1001-051 with serial number (S/N) D2-0001 up to D2-0108 inclusive, D2-0123, D2-0126, D2-0127, or D2-0130 up to D2-0136 inclusive with a not affected MGB before the affected MGB accumulates 3,708 hours TIS. EASA AD 2017-0037 also prohibits installing an affected rotor mast nut or an affected MGB that has accumulated more than 3,708 hours TIS since first installation on a helicopter. Additionally, EASA AD 2017-0037 requires revising the Aircraft Maintenance Program (AMP).

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed Airbus Helicopters Alert Service Bulletin MBB-BK117 D-2-63A-001, Revision 0, dated December 1, 2016 (ASB 63A-001), which is not incorporated by reference, which specifies procedures for re-identifying the rotor mast nut by using a vibrograph, crossing out the old P/N and marking the new P/N on the outer surface, engraving the letter “A” behind the S/N of each part, and updating the historical record and log card to confirm compliance with ASB 63A-001. ASB 63A-001 also specifies during the next MGB overhaul, making an entry in the log card to confirm re-identification of the helical gear support, and annotating the S/N of the helical gear support.

FAA’s Determination and Requirements of this Proposed AD

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition

described in EASA AD 2017-0037. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in EASA AD 2017-0037, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and the EASA AD.”

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2017-0037 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2017-0037 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA AD. Service information specified in EASA AD 2017-0037 that is required for compliance with EASA AD 2017-0037 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0450 after the FAA final rule is published.

Differences Between this Proposed AD and the EASA AD

EASA AD 2017-0037 applies to Model MBB-BK117 D-2 and D2m helicopters, whereas this proposed AD would only apply to Model MBB-BK117 D-2 helicopters because Model D-2m is not FAA type-certificated. If the total hours TIS for an affected rotor mast nut cannot be determined, this proposed AD would require removing the rotor mast nut from service before further flight, whereas EASA AD 2017-0037 does not contain this requirement. EASA AD 2017-0037 requires using a vibrograph to re-identify certain rotor mast nuts, whereas this proposed AD would require using a vibro etch instead. EASA AD 2017-0037 requires replacing certain parts, whereas this proposed AD would require removing certain parts from service instead. EASA AD 2017-0037 requires revising the AMP, whereas this proposed AD would not.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 30 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Determining the total hours TIS on an affected rotor mast nut would take about 1 work-hour for an estimated cost of \$85 per helicopter and \$2,550 for the U.S. fleet.

Re-identifying a rotor mast nut would take about 1.5 work-hours for an estimated cost of \$128 per rotor mast nut.

Replacing a rotor mast nut would take about 6 work-hours and parts would cost about \$5,351 for an estimated cost of \$5,861 per rotor mast nut.

Replacing a main gearbox, which includes replacing the helical gear support, would take about 42 work-hours and parts would cost about \$295,000 (overhauled) for an estimated cost of \$298,570.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Airbus Helicopters Deutschland GmbH (AHD): Docket No. FAA-2021-0450; Project Identifier 2017-SW-100-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters, certificated in any category, with an affected main gearbox or affected rotor mast nut as identified in Note 1 of European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2017-0037, dated February 22, 2017 (EASA AD 2017-0037) installed.

(d) Subject

Joint Aircraft System Component (JASC) Code: 6200, Main gearbox.

(e) Unsafe Condition

This proposed AD was prompted by the discovery that certain parts that are approved for installation on multiple helicopter models are life limited parts when installed on Model MBB-BK 117 D-2 helicopters and some helicopter delivery

documents excluded the life limit information. The FAA is issuing this AD to prevent certain parts from remaining in service beyond their fatigue life. The unsafe condition, if not addressed, could result in failure of the part and loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2017-0037.

(h) Exceptions to EASA AD 2017-0037

(1) Where EASA AD 2017-0037 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2017-0037 refers to flight hours (FH), this AD requires using hours time-in-service (TIS).

(3) Where paragraph (1) of EASA AD 2017-0037 requires determining the FH (total hours TIS) accumulated by the affected rotor mast nut since first installation on a helicopter, this AD requires removing the rotor mast nut from service before further flight if the total hours TIS cannot be determined.

(4) Where the service information referenced in Note 3 of EASA AD 2017-0037 specifies to use a vibrograph to mark the new part number, this AD requires using a vibro etch.

(5) Where paragraph (4) of EASA AD 2017-0037 requires replacing each affected rotor mast nut with a not affected rotor mast nut before exceeding 3,708 FH (total hours TIS) since first installation on a helicopter, this AD requires removing each affected rotor mast nut from service before accumulating 3,708 total hours TIS.

(6) Where paragraph (6) of EASA AD 2017-0037 requires replacing each part as identified in Table 2 of EASA AD 2017-0037 before exceeding the FH (total hours TIS)

limit, this AD requires removing each part from service before exceeding the total hours TIS limit.

(7) Paragraph (7) of EASA AD 2017-0037 does not apply to this AD.

(8) The “Remarks” section of EASA AD 2017-0037 does not apply to this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For EASA AD 2017-0037, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0450.

(2) For more information about this AD, contact Rao Edupuganti, Aerospace Engineer, Dynamic Systems Section, Technical Innovation Policy Branch, Policy &

Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email rao.edupuganti@faa.gov.

Issued on May 27, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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